

TO OUR FRIENDS AND PARTNERS FIGHTING AGAINST COVID-19 IN DEVELOPING COUNTRIES

Message from the JICA President



The COVID-19 pandemic has swept across countries at rates faster than many of us had predicted, now impacting 188 countries, infecting 6 million people and killing 368,000. Even still, the world has not managed to contain the outbreak to date. In the metropolitan areas of high-income countries, the outbreak continues to overwhelm health systems, causing unprecedented damage to people's livelihoods and economies. The impact of COVID-19 on the world economy may even become comparable to the distress caused by the Great Depression in the last century. Never before in our history have the responses of each country to a common cause been so visible around the world.

While some countries in East and Southeast Asia have successfully prevented an explosion of infections, others in South Asia have experienced extreme difficulties. In some countries in Latin America, the situation has become extremely severe, with high infection rates within their major cities. In Africa, while the number of infections is not yet high, with around 134,000 confirmed cases and 4,000 deaths, the disease is already spreading rapidly in some countries.

High income countries have invested heavily over the years in strengthening their health systems, but the current threat has still left many of these countries devastated.

On the other hand, many low- and middle-income countries have demonstrated ownership over their challenges, heeding the advice provided by experts and drawing on their own past lessons, and the lessons of other countries. They have been inventive and have worked hard to hold their ground. At the same time, however, the severe restrictions on people's daily activities have limited some health services and have placed a heavy burden on people's livelihoods and national economies.

Countries across the world have been affected by the pandemic and have responded to the outbreak in a variety of ways. Japan has similarly undergone its own response efforts, which have resulted in some interesting findings about Japan's public health preparedness. Compared to other countries, Japan is found to have some unique features when it comes to responding to health crises, including

community awareness of hygiene and sanitation practices, universal health coverage (UHC), non-communicable diseases control, food and nutrition and prevention measures. In addition to these findings, the research team also examined other potential factors, including aging, urbanization and health systems. Through the coming few months, we will continue to examine these factors and share the results of our observations and analyses with the world.

By heavily affecting high-income countries and densely populated cities, COVID-19 has also served as a wake-up call for the need to rethink the state of our modern society and world order. If we overcome this pandemic and use it as a learning opportunity, we can build upon this experience to work toward establishing a “New World” that confronts the challenges of modern society. In the “New World,” the way nations protect their citizens, or elicit their voluntary actions, as well as the way cities operate, and how people work, learn and communicate may be better than what they are now.

JICA has now restricted many of its staff and related stakeholders from traveling domestically and internationally. However, we intend to take on this challenge as a rare opportunity to enhance and improve our operations to respond to the urgent needs of low- and middle-income countries. In order to enhance our activities, JICA will fully utilize our human resources and organizational networks, which we have developed over the years. We will also simultaneously work to rapidly expand new networks and utilize those resources.

More than ever before, JICA will also focus on scientific perspectives to realize UHC through building resilient and flexible health systems in developing countries. In addition, we will learn from the experiences of COVID-19 to work with our partners around the world toward establishing the sustainable “New World”. Under JICA’s vision of “Leading the world with trust,” JICA aims to further realize a transparent and equitable society and world order where every person’s potential is fully harnessed.

I would also like to take this opportunity to express my sincere gratitude to Dr. KUROKAWA Kiyoshi, who has been a leading academic for many years. We have received valuable guidance from him on the draft of this message and on the possibility of disseminating future research results.

KITAOKA Shinichi
President

May 31, 2020

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1

HOW HAS JAPAN RESPONDED TO COVID-19?

1-1. Japan's early responses to COVID-19

On January 16, 2020, Japan reported its first confirmed case of COVID-19. On January 30, the Government of Japan established a task force on Japan's COVID-19 response, and on February 1, Japan imposed measures to restrict entry from the Hubei Province, which included the city of Wuhan. Given the quick response together with public health measures, Japan largely succeeded in containing the Wuhan-derived COVID-19 outbreak in Japan. After the first infected case of returnees from Europe was detected in late February, Japan imposed entry restrictions on Northern Italy on March 2, and then on the entirety of Europe starting March 21. Well before these entry restrictions were introduced, Japan had actively implemented domestic countermeasures against clusters (i.e., countermeasures to track and test close contacts of infected patients). However, the number of infected patients with unknown infection route began to increase. The COVID-19 cases are said to have further spread across the country during the cherry blossom and spring break season, where we saw many people returning from abroad and many crowds going out into the streets to watch cherry blossoms.

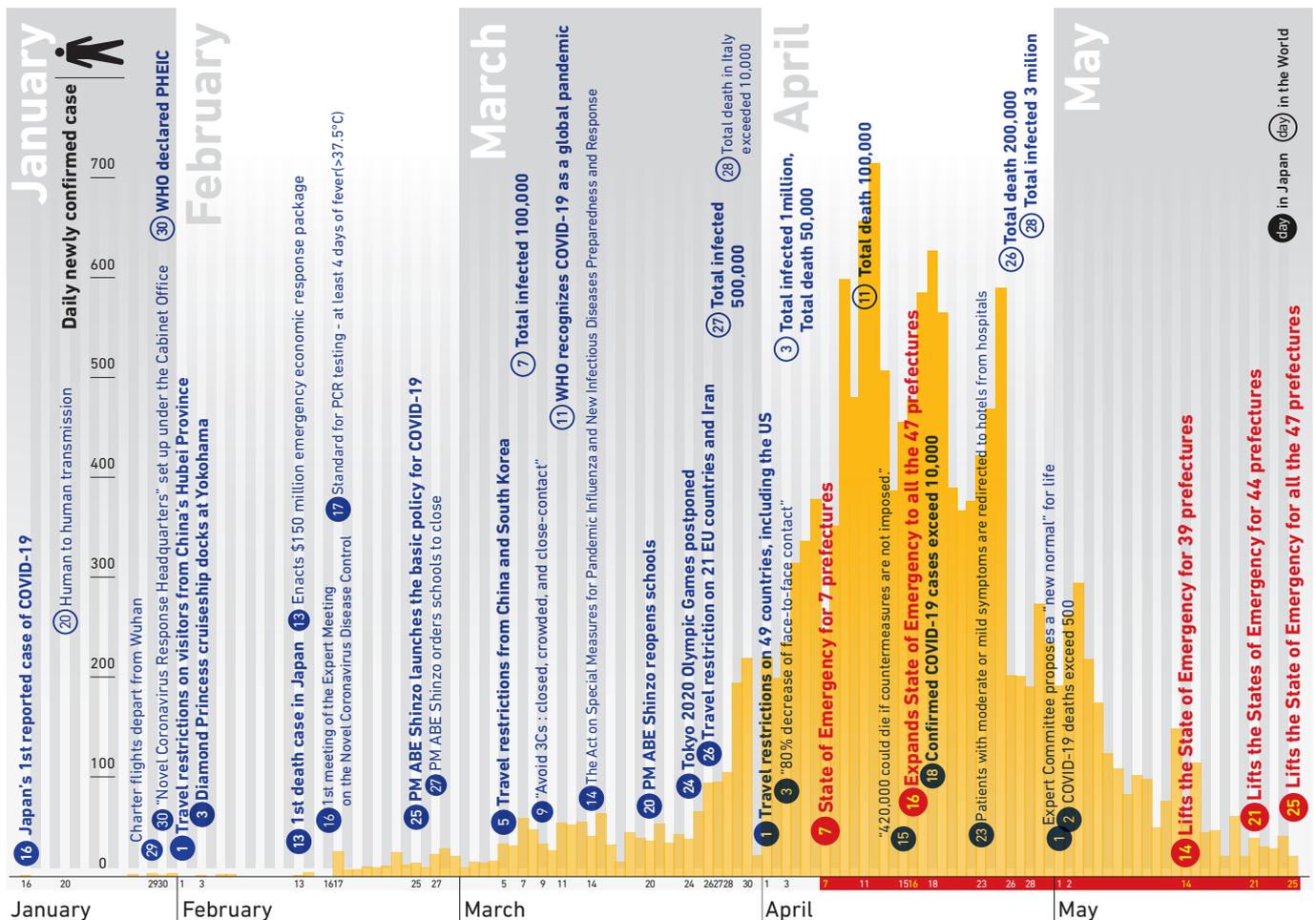


Figure 1. Japan's response to COVID-19 outbreak

source: Ministry of Health, Labour and Welfare, Japan (daily newly confirmed case) data. https://www.mhlw.go.jp/stf/newpage_11528.html

1-2. State of Emergency without punitive measures

On April 7, the Government of Japan declared a State of Emergency. This declaration called on the public to limit face-to-face contact by 80 percent. However, this order was not accompanied by penalties or other forms of enforcement. Since the State of Emergency, the numbers of new confirmed cases in Japan has declined, peaking at 714 new infections on April 11 (we estimate the real peak occurred around March 27 after taking into account the two week window before the onset of symptoms). Although cases in Japan were declining, on May 7, the government decided to extend the State of Emergency, citing that the rates of decline were still insufficient. A week later, on May 14, the government lifted the State of Emergency for 39 out of 47 Japanese prefectures, which were prefectures that had reported almost no new cases in the previous week. The State of Emergency remained in effect for the remaining eight prefectures, including Tokyo, the most populous prefecture of Japan.

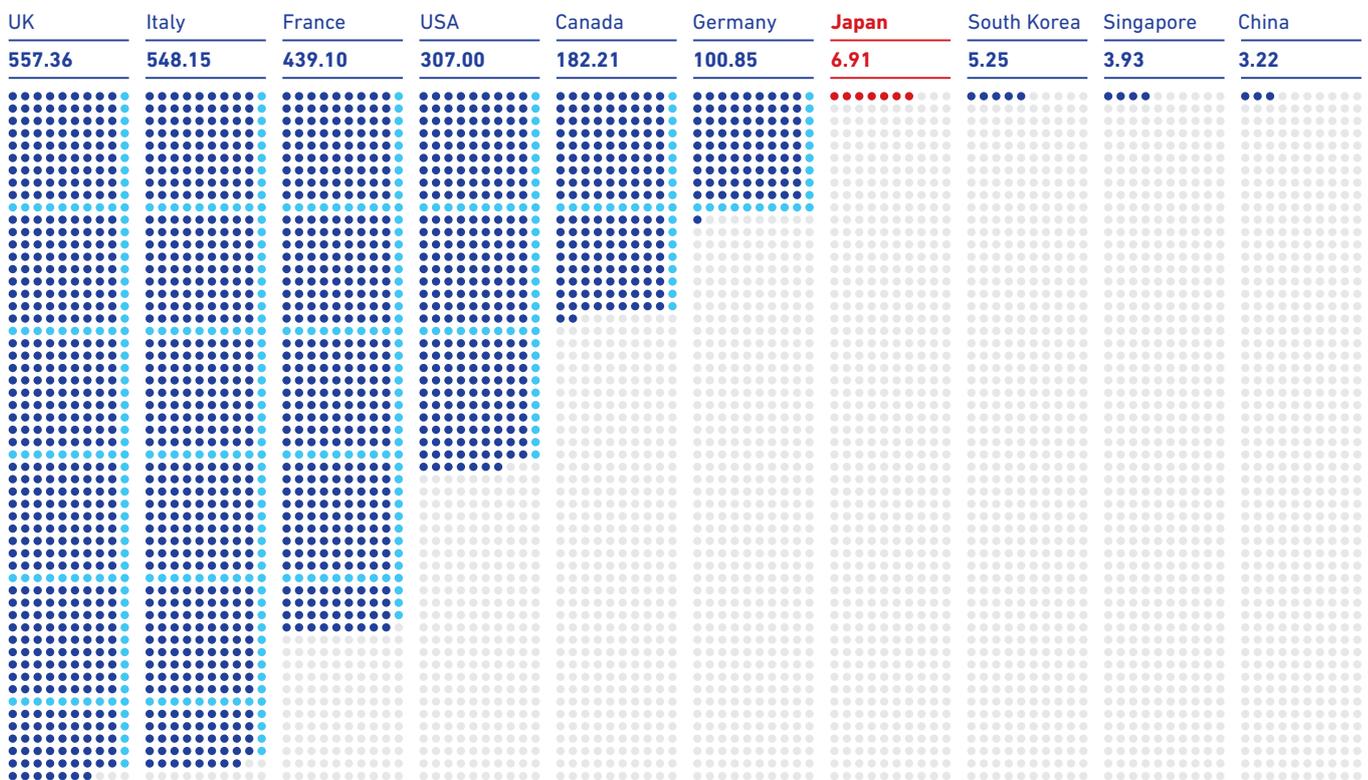


Figure 2. The number of COVID-19 deaths per million population by country

source: Our world in Data <https://ourworldindata.org/covid-deaths> (May 29, 2020)

On the same day (May 14), the confirmed death toll from COVID-19 exceeded 300,000 worldwide due to a rapid increase in cases across Europe and North America. At the same time, the number of deaths per capita remained low across Asian countries, including in Japan. In Japan, as of May 30, the total number of deaths from COVID-19 was 886, including fatalities linked to cruise ships.¹ The total number of COVID-19 deaths in Japan account for just 27% of the 3,325 influenza deaths that Japan experienced last season. As shown in the figure 2, Japan has succeeded in keeping the number of COVID-19 per capita deaths relatively low. In addition, according to the Ministry of Health,

Labour and Welfare, the total number of excess deaths in Japan for this season (January-March), including COVID-19 related deaths, have not been recorded as higher than previous years for the same season.² In light of these, Japan has also been able to keep the potential number of COVID-19 deaths low.

There are now clear signs of decreased infection rates within the country, which resulted in Japan lifting its State of Emergency on May 25. To date, foreign media have described Japan's response as largely successful, stating Japan has "miraculously low" number of fatalities and calling it "going weirdly right".³ Further analysis on the Japan's response and enabling factors are described throughout the remainder of this document.

1-3. Impacts of self-restraint and other COVID-19 responses

Prolonged travel restrictions and voluntary stay-at-home orders due to COVID-19 have greatly impacted people's lives, livelihoods and the economy. Health services unrelated to COVID-19 have also been affected by restrictions.

The Japanese economy has been in an increasingly severe situation due to the impact of the spread of COVID-19 at home and abroad. Among those most impacted are vulnerable groups.

In response, the Government of Japan has drafted one of its largest relief packages in its history to boost its economy.



Washing hands under
the State of Emergency
(Japan)

2 HOW DO WE SEE THE GLOBAL RESPONSE?

2-1. The current situation in the world

2-1-1. High income country vulnerabilities

The COVID-19 pandemic has demonstrated that the health systems in high income countries are also not always adequately prepared to respond to infectious disease threats. In addition, the impacts of these diseases are often instant and far-reaching, affecting people's lives and the economy.

Just as the pandemics of the past have served as major turning points in human history, COVID-19 raises fundamental questions about the nature of our modern society. There is a growing debate on the need to radically reimagine the way our modern society operates by reviewing the benefits and detriments of today's profit and efficiency driven economy, as well as the impacts of overcrowded and densely populated cities. Such re-imagination is necessary to ensure our society can truly achieve the goals set out by the Sustainable Development Goals (SDGs) and can remain sustainable.

2-1-2. Challenges for low- and middle-income countries

The current COVID-19 crisis can be broken down into three different dimensions: (1) the health crisis directly caused as a result of COVID-19; (2) a crisis across entire health care systems as COVID-19 overwhelms them; and (3) a crisis beyond the health sector, including impacts on political, economic, social, and cultural spheres.

Given that low- and middle-income countries do not always have adequate health systems and are more vulnerable to various crises compared to rich counterparts, how are they working to respond to the three dimensions of the crisis?



Baba Dogo area, Nairobi (Kenya).
Photo by Tomoko Tsukahara

2-1-3. Dimension I: Responding to the Direct Health Crisis

As of May 30, Africa has reported about 134,000 confirmed COVID-19 cases and about 4,000 COVID-19 deaths. While these numbers are not considered not very high for Africa's population of more than 1.3 billion people,⁴ the infection has now begun to spread rapidly within some countries. While some countries in East and Southeast Asia have been successful at preventing an explosion of infections, others in South Asia have experienced extreme difficulties. In some countries in Latin America, the situation has become extremely severe, with high infection rates within their major cities. Furthermore, as of May 28, the 25 fragile states defined by the United Nations as the focus of its humanitarian responses have now reported that they have about 96,000 confirmed infections and about 3,000 deaths, with neither showing signs of decline.⁵ Even if the world could bear the burden of these countries to mitigate the first wave of infections, the costs of a second or third wave remain unpredictable. Therefore, the toll of the health crisis remains unclear for future years.



Performing PCR tests (Ghana)

However, based on the information gathered by JICA's overseas offices, it is evident that many countries are listening to the opinions of international organizations and experts, and they are taking advantage of the lessons they have learned from their past, as well as the best practices of other countries, to implement measures based on scientific evidence in a context-appropriate manner. It is also important to note that many countries have also exchanged various COVID-19 related information from the very early stages of the outbreak, including viral information and patient characteristics due to an existing platform that enables scientific information-sharing based on the lessons learned of previous infectious disease

countermeasures. The ability for countries to seamlessly exchange information also indicates that advancements in communication technologies have enabled countries to quickly replicate best practices and better employ scientific knowledge to their advantage.

Not a few countries in particular have taken advantage of its past experiences and lessons learned to respond more efficiently to COVID-19. Dr. Dang Duc Anh, the Director of the National Institute of Hygiene and Epidemiology of Socialist Republic of Viet Nam said, "We didn't have a full response capacity during SARS, but now we're using the BSL3 lab in our initial response." In addition, some countries have drawn upon experiences apart from their disease response activities that have also proven effective. For example, the Kingdom of Thailand's former Minister of Transport, Mr. Arkhom Termpittayapaisith shared, "Thailand has experiences dealing with emergencies from its mega-flooding response in 2011, as well as other communicable diseases in the past. In particular, the Single Command Management, in which responsible agencies and medical experts directly report to the Prime Minister, has been proven an effective tool in combating coronavirus. With clear direction and guidelines from the Single Command Center, the Government has won public support in all respects." Countries' innovative COVID-19 responses are not only limited to the health sector. Mr. Maurice Tshikuya, Administrator Director General of the National Institute of Professionals Preparation of the Democratic Republic of the Congo (DRC) shared, "Automatic hand washers

will be developed, produced and distributed during the COVID-19 pandemic. We are also providing free repairs of medical equipment, including ventilators, in the capital Kinshasa and the provincial city of Bukavu.” In addition to the examples listed above, several JICA overseas offices have also identified numerous other innovative activities within developing countries, including awareness-raising campaigns that use communication technology through public private partnerships, as well as activities to support vulnerable populations by leveraging existing social networks and community contacts. While these are just a few examples of ongoing activities, each example showcases a common theme of involving diverse actors and working in solidarity through the power of people to enhance resilience against COVID-19. Through these examples, JICA has found ample evidence that people across the world are not simply being “protected” by their states and governments, but they are protecting themselves through their own power and abilities. The power of the people has enabled individuals to not only care for their own lives, but also overcome this crisis.

2-1-4. Dimension II: Overwhelmed Health Care Systems

While the response in each country to COVID-19 is remarkable, the success of the overall health sector in responding to the impacts of the disease is a different story. While many countries have had to refocus their limited human and financial resources on COVID-19, it has then made many of them unable to meet their citizen’s basic health care needs that it had provided before the pandemic. These resulting healthcare shortfalls have then disproportionately affected poor and vulnerable populations. Furthermore, in the next six months, more than 1.15 million infants and 50,000 pregnant and nursing



A father and his child holding a maternal and child health handbook (Palestine)

mothers are expected to die from the impacts of global stagnation, particularly in low- and middle-income countries.⁶ This catastrophe will be particularly acute among the poorest populations, which lack access to basic maternal and child health services. Additional side-effects of this pandemic will result in a significant number of excess deaths, by the decline of available health care services for non-communicable diseases (like respiratory disease, heart disease, and diabetes), reduced access to good nutrition, reduced exercise, and increased dependence on addictive substances.

The Palestinian Ministry of Health recently said, “Because of the crisis, many maternal and child health facilities have had to close. During normal times, maternal and child health facilities are able to support 7,000 patients a month; however, due to the COVID-19, there are now less than 3,000 patients per month that they can see and care for.” At the same time, however, the Palestinian Ministry of



A public hand-washing station (Bhutan)

Health offered a positive note: “Even in this COVID-19 crisis, we are using the nationally disseminated maternal and child health handbook to provide pregnant women and their children with health education for follow-up.”

2-1-5. Dimension III: Impacts Beyond the Health Sector

The third dimension of the COVID-19 crisis is its impact beyond the health sector, including political, economic, social, and cultural aspects. In many ways, the impacts on this dimension are even more serious. Aside from the immediate health crisis, the social effects of the countries’ pandemic response measures pose significant challenges. For example, lockdown orders put pressure on the lives of the poor and vulnerable by restricting their movement and depriving them of their education and employment opportunities. Some 77 percent of children under the age of 18 (1.8 billion people) currently live in countries that have some form of restrictions on movement, which limits their access to much-needed education, health care, and food.⁷

Economically, industries tied to tourism, imports and exports have been adversely impacted by the shrinking global economy due to the pandemic.

Violent conflict is also projected to make the impacts of COVID-19 even more severe and widespread. Currently, 87 countries report worsening security,⁸ and 43 countries that are presently affected by conflict expect further deterioration in the overall living conditions of their populations.⁹ This is all despite the United Nations (UN) Secretary-General’s call for a global ceasefire in the face of the COVID-19.

For nations impacted by violent conflict and other social impacts, the road to recovery will be difficult. Dr. Jim Yong Kim, the former President of the World Bank Group said, “The battle against the devastating effects of COVID-19 has revealed weaknesses in health systems throughout the world and has also taught us that a single virus can bring down the global economy. I am especially worried about health systems and economies in the developing world.”

The pathway ahead for low- and middle-income countries is extremely difficult. Dr. Phouphet Kyophilavong, the Vice Dean of the Faculty of Economics and Business Management at the National University of Laos said, “The impact on aviation and tourism will be significant, and the impact on

the national finances of Laos, which is in a difficult situation, will be significant. As for the impact on the poor, factories and service industries have been closed due to the lockdown and many people are deprived of their salaries as a result. If the impact on the economy continues, I am concerned about food shortages in rural areas and a negative impact on the nutritional health of children.” Similarly, Dr. Haron Sirima the Director General of the Public Debt Management Office from the National Treasury in the Republic of Kenya noted, “The crisis has impacted the economy badly. Last year’s projected growth



A woman sewing handmade masks by using traditional cloth (Tanzania)

was 5.8%, but it is now projected to be lower. The worst-case scenario is for the economy to grow by less than 1%. Restriction of movement has affected the transport sector, tourism and trade.” At the same time, many low- and middle-income countries have already implemented emergency economic and fiscal policies to mitigate further economic shock and assist the poor. By conducting such measures, these countries are bringing the government and the citizenry together to tackle these difficult situations.

2-2. Calls for assistance to low- and middle- income countries

2-2-1. Global response initiatives

On March 31, 2020, the UN Secretary-General, António Guterres, said, “a large-scale, coordinated and comprehensive multilateral response amounting to at least 10 percent of global GDP” is needed for the world to recover from COVID-19.¹⁰ On May 15, the International Monetary Fund (IMF) Managing Director, Kristalina Georgieva, projected that 170 countries would experience negative growth in 2020.¹¹

In an effort to help fill the funding gaps across the globe, the IMF has mobilized a total of \$1 trillion in lending capacity, including interest-free emergency loans for countries most in-need, and it has approved debt relief for 27 countries.¹² The World Bank (WB) pledged a \$160 billion emergency assistance package, and its Pandemic Emergency Facility has committed to allocate \$195.84 million to 64 countries.¹³ Additionally, the Asia Development Bank (ADB),¹⁴ Asia Infrastructure Investment Bank (AIIB)¹⁵ and New Development Bank (NDB)¹⁶ have also announced their own loan initiatives.

The UN created three funding mechanisms to prepare a comprehensive response to the COVID-19 pandemic, including a request for \$6.7 billion for humanitarian assistance in conflict-affected and fragile countries. Additionally, the World Health Organization (WHO) has expressed that it will need to raise at least \$675 million for its initial response, and it also activated the Contingency Fund for Emergencies. The WHO is also soliciting shortfall funds from governments, corporations, foundations and individuals.¹⁷ In addition, in the UN’s May 2020 SDGs Progress Report, the UN Secretary-General urged the international community to unite and abide by the universal principle of the SDGs to “leave no one behind.”¹⁸

Since March, donor governments have also worked to rapidly expand their COVID-19 response efforts. Japan, The United States of America, the United Kingdom, the European Union, and the People’s Republic of China are all actively involved in addressing the crisis. They are currently considering measures to provide bilateral and multilateral support to developing countries, including in conjunction with the Vaccine Alliance (Gavi) and The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). They are also discussing possible options for deferring debt payments for countries most in need.

2-2-2 Commitments made by the Government of Japan

The Government of Japan has committed financial contribution to the WB, IMF and ADB¹⁹, and to

international organizations such as Gavi and the Coalition for Epidemic Preparedness Innovations (CEPI) for the development of vaccines and others.²⁰ The Government of Japan will also take several actions with unprecedented velocity to support low- and middle- income countries for infectious disease control and health systems strengthening, as well as for keeping and stimulating the economy in the regions having close economic relationship with Japan. They include additional loans to supply funds immediately for economic measures and others to developing countries mainly in Asia and Pacific regions, grant aids to supply medical equipment utilizing Japanese products, and technical cooperation for capacity development in the area of infectious disease control and so on.

2-2-3. Vaccines and Therapeutics

In order to curb the threat of infectious diseases, the world must develop, manufacture and equitably distribute vaccines and therapeutics. To do this, the world must expand the use of existing drugs to treat COVID-19, where relevant, and develop new drugs and vaccines through public-private partnerships and academic collaborations to distribute them on a global scale. In May 2020, some 50 countries and institutions pledged €7.4 billion (\$8 billion) for the development and dissemination of diagnostic methods, therapeutics and vaccines. Japan's Prime Minister, ABE Shinzo attended as a co-organizer through a video message.²¹ The Gates Foundation has also been active in this effort and has pledged \$400 million to support diagnostics, treatment and vaccine development. The Gates Foundation is also working with private companies to develop a mass production system in parallel with this development work. In addition, other innovative financing initiatives have begun, like Gavi's advance market commitment program.²²

The Government of Japan also participates in the international framework to support the diagnosis, treatment and development of a COVID-19 vaccine. Additionally, the Government of Japan and the Japanese private sector have worked together to promote clinical research in Japan and across the globe.^{21 23}

2-2-4. Limits to assistance?

These efforts, however, entail a host of challenges. It will be extremely difficult to close the aforementioned funding gap in a short period of time seeing as developed economies are encountering such difficult circumstances themselves.

Furthermore, while it goes without saying that the world should do everything in its power to develop and manufacture vaccines and therapeutics as quickly as possible, ensuring that they reach all people—especially in poor and vulnerable countries that all too often are put on the back burner—will be just as essential. It is important to recognize that equitable vaccine distribution around the world will be a necessary part of protecting our lives and livelihoods in this manner.

Also, widespread restrictions on people's movement, the inability to receive outside assistance in some cases, and the global shortage of essential medical supplies understandably have fueled various localized responses to the pandemic. However, there is an urgent need for the world to recognize the limitations of standalone disease control measures and to work in unison on comprehensive measures that focus, in particular, on strengthening health systems.

Chapter 3 WHAT CAN WE LEARN?

3-1. Overcoming the trade-offs

Implementation of countermeasures against COVID-19 has only just begun in Japan and elsewhere; in reality, they will remain being sub-optimal until we somehow acquire collective immunity by natural means or, better yet, develop a vaccine along with better therapeutics. As mentioned above, it is safe to assume that any impact on people's lives, as well as on broader political, economic and social life, will be quite long-lasting.

It is also important to be mindful of a severe resource allocation trade-off here. That is, by investing scarce resources toward addressing the first dimension (the pandemic itself), there is a risk that the second and third dimensions (i.e., the health care system, people's lives, as well as political, economic, and social life) will be negatively impacted to such an extent that ordinary people will not be protected.



Training regarding appropriate PPE use (Kenya)

3-2. 'Self-Motivated Individuals', 'Power of Science,' and 'New Governance'

Can the resource allocation trade-offs referred to above be overcome? Whereas high-income countries have the wherewithal to invest funds in infectious disease control, low- and middle-income countries face challenges in doing so. Moreover, even if those countries succeed in overcoming the crisis along the first dimension, it can still severely impact other parts of their health systems, their national economies, and the livelihoods of their people.

In light of the various strains imposed on governments by the current crisis, how they exercise governance in response to it and future crises will become an extremely important point of discussion from now on. Specifically, there is a need for resilient and flexible governance by the state that accepts and encourages the "voluntary action of self-motivated individuals" and allows the "power of science" to be used appropriately. All of these elements not only contribute to the "effectiveness of infectious disease outbreak response" but inform how whole societies should function in the post-COVID-19 era.

While the voluntary actions of "self-motivated individuals" are not always readily apparent, they are now at the forefront of crisis response and management in low- and middle-income countries. In fact, in many low- and middle-income countries, various initiatives such as awareness-raising, support for food-insecure and socially vulnerable people, fund-raising, and the use of cross-sectoral know-how are being undertaken through voluntary action or collaboration among private companies, civil society, and local communities. Such efforts can lead to an accumulation of social capital and increase social resilience in the face of crises and anti-social activities, like violent extremism, that

might spread in such trying times.

In addition, the “power of science” again deserves emphasis. Today, with global information sharing made possible by powerful technologies, perhaps the best that can be done in terms of a public health response to the crisis is for governments to listen to experts and do their best to limit the impact of threats emanating from it. Meanwhile, the true “power of science” is likely to be felt most in the future. Former Minister of Higher Education for the Arab Republic of Egypt Professor Hany Helal said, “Science, Technology and Innovation (STI) is the driving force of the future, and new challenges have already begun.” This, in essence, represents a call to mobilize the “power of comprehensive science,” including analysis of politics, economics, society, etc., beyond medical epidemiology in view of the complexity of the second and third dimensions referred to previously and to identify the most appropriate prescriptions according to the characteristics and realities of each country and region.

In the following section, Japan’s COVID-19 response will be discussed and compared with other countries, at least to the extent possible.

3-3. Japan in comparison to the world

3-3-1. Japan’s uniqueness

The social, medical, and public health measures Japan has taken so far may explain the resulting low number of infections and deaths that it has experienced in comparison to many other countries. On March 2, when the spread of infection in Wuhan, China, passed its peak, the WHO named Japan, along with Iran, Italy and South Korea, as countries of greatest concern for the spread of COVID-19.²⁴ Since then, South Korea has been able to control at least the first and second waves of infection by steadily applying the lessons learned from MERS, taking quick action to implement WHO-recommended massive testing and isolation, and thoroughly implementing ICT-based tracking of infection routes.

From the outset, Japan’s strategy was to reduce the number of deaths by focusing on contact tracing, namely through a “cluster approach”, to prevent subsequent massive infections. This includes tracking and testing those who have come into close contact with confirmed COVID-19 cases. In terms of the way people behave, Japanese authorities promoted self-isolation and staying at home. Tests have been conducted mainly on cluster members and their close contacts. This is based on an understanding of the characteristics of the SARS-CoV-2 contagion; specifically, there are indications that eighty percent of infected people do not cause secondary infections while twenty percent do—with some of the latter, called super-spreaders, especially prone to precipitating outbreaks. Furthermore, from the perspective of preventing nosocomial infections in hospitals or clinics due to overcrowding and given the moderately low level of testing accuracy, Japan did not adopt a policy of testing on a large scale but rather set certain testing criteria. In the end, Japan has the high standards in the world in terms of the contacts investigation per infected person. Currently, the number of deaths per million people has remained low at 6.91 (as of May 29, 2020).²⁵ Importantly, contact tracing is being carried out in a way that does not infringe on or violate the fundamental freedoms and rights of the Japanese people.

Likewise in other countries, it could be inferred that the deadly threat of COVID-19 has not fully

subsided in Japan, and the current optimal situation in the country is possibly resulted by a complex interplay of various medical and social factors.

3-3-2. Economic affluence

One of the characteristics of COVID-19, at least to date, is that it has had a larger impact in terms of both spread and death count on high-income countries than low- and middle-income countries. This finding is paradoxical given traditional tenets of development theory. As of May 17, 2020, a positive correlation was observed between COVID-19 deaths per million population and GDP per capita (correlation coefficient of 0.64), indicating that the number of deaths in high-income countries is greater than in low- and middle-income countries. On the other hand, GDP and economic inequality (as measured by the GINI coefficient) are not correlated with the number of deaths due to COVID-19 (with correlation coefficients of 0.211 and -0.25, respectively).

From this, it probably would be incorrect to conclude that the low number of COVID-19-related deaths in Japan is due to the country's economic affluence.

However, it is “correlation”—not “causation”—that is being examined here (as well as in the analysis below). In many low- and middle-income countries, the outbreak of COVID-19 is not under control, and therefore the number of deaths from it is likely to increase in a number of these countries. It is also highly likely that the number of deaths in some low- and middle-income countries has not been accurately ascertained in the first place. It is also necessary to look at the situation from a broader

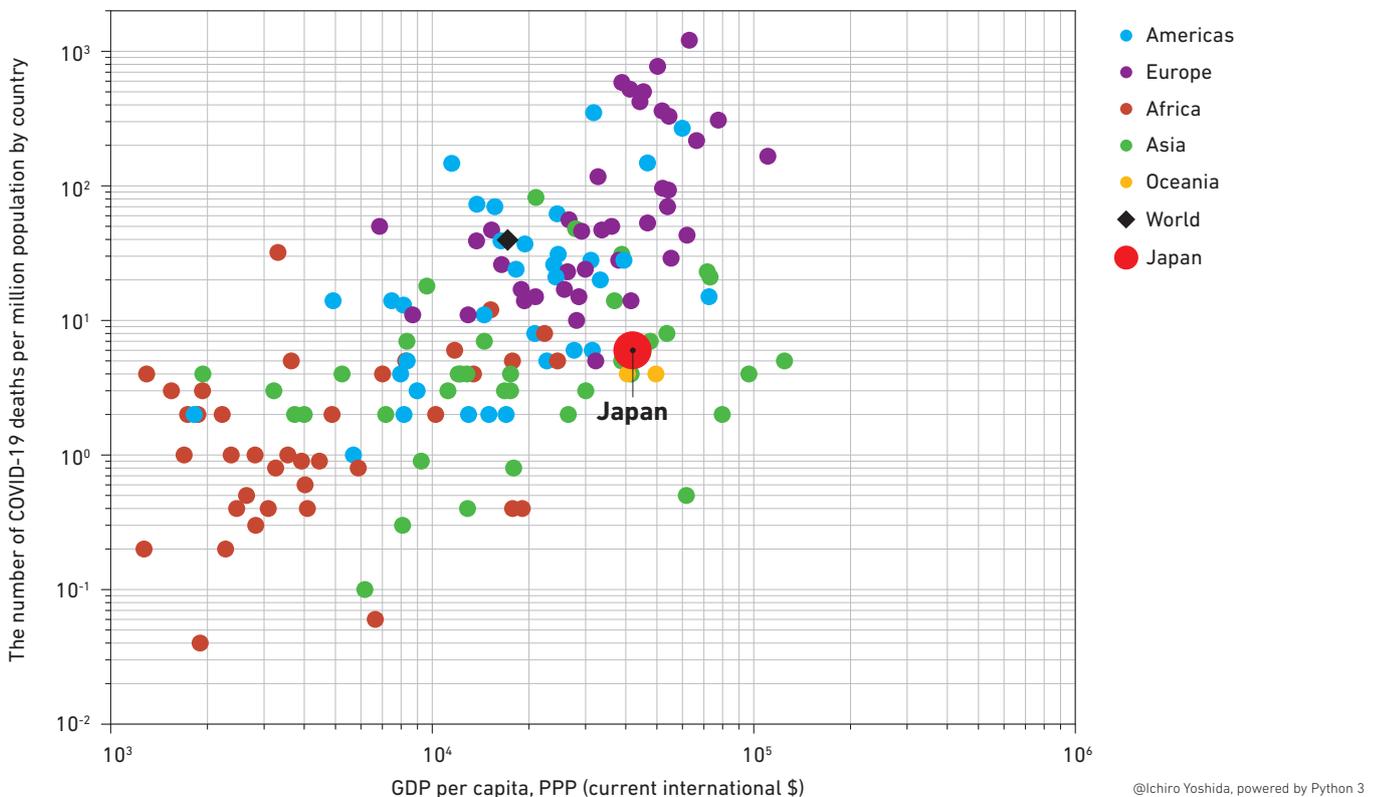


Figure 3. The association between the number of death cases from Covid-19 and GDP per capita

source: WORLDOMETER COVID-19 CORONAVIRUS PANDEMIC, accessed on May 17, 2020. <https://www.worldometers.info/coronavirus/> ;
The World Bank Data, accessed on May 23, 2020. <https://data.worldbank.org/indicator/>

perspective, including the number of excess deaths associated with all causes of death, rather than just the number of deaths caused by COVID-19.

3-3-3. Aging population

The evidence suggests that there is also a positive correlation between the rate of aging (percentage of the total population aged 65 and over) and the number of deaths due to COVID-19 (correlation coefficient of 0.66). In other words, the number of deaths tends to increase as the rate of aging increases. Japan has the highest rate of aging in the world, followed by Italy. However, in Japan, the number of deaths is not proportional to the high rate of aging and remains low, as the figure 4 below shows. In Italy and Spain, many elderly people in nursing homes who were infected with COVID-19 have died without receiving hospital care. The ratio of elderly facility resident deaths due to COVID-19 to all deaths caused by COVID-19 is about 14% in Japan, which is low compared to other countries (About 40% in Germany and France).^{26 27} In short, as Japan may have been successful in limiting elderly deaths amid the pandemic,²⁸ it is possible the way in which infectious diseases are prevented or managed at elderly facilities, as well as the overall system for providing medical care to the elderly.

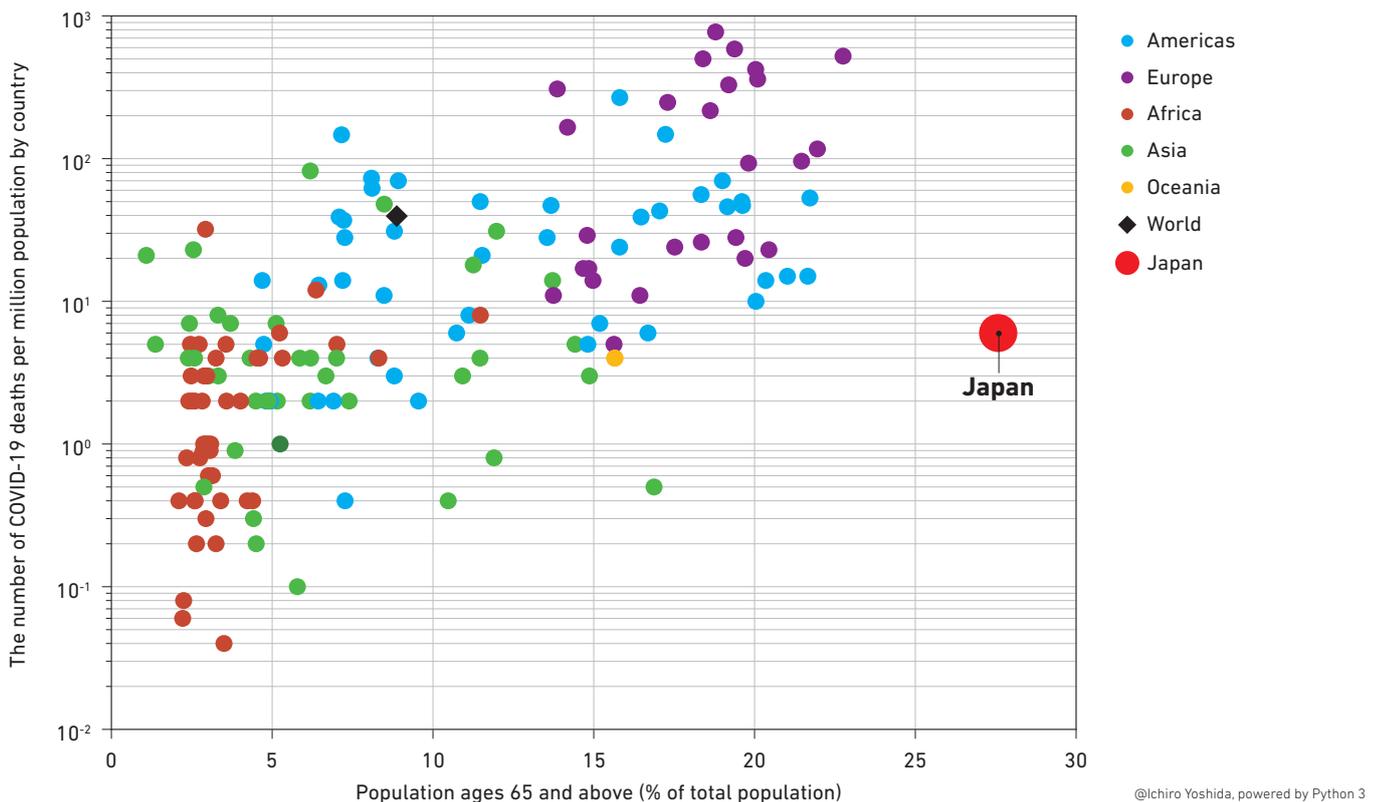


Figure 4. The association between the number of death cases from Covid-19 and aging rate

source: WORLDOMETER COVID-19 CORONAVIRUS PANDEMIC, accessed on May 17, 2020. <https://www.worldometers.info/coronavirus/> ;
The World Bank Data, accessed on May 23, 2020. <https://data.worldbank.org/indicator/SP.POP.65UP.T0.ZS>

3-3-4. Awareness and lifestyle habits

In terms of awareness of hygiene and health, it cannot be said that Japan ranks particularly high in comparison with countries such as Sweden and South Korea. However, it is worth noting that hand washing, gargling, and masks (for infectious disease prevention especially in winter) have taken root “as a natural way of life” in Japan as a result of years of education and awareness-raising on hygiene



Washing hands immediately upon arriving home every day (Japan)

and health. In addition, the fact that greetings—such as bowing at a distance—and the custom of taking off one’s shoes in a living space, as opposed to shaking hands or embracing (which are not common in other East Asian cultural spheres, such as China and South Korea, either), were established in Japan long before COVID-19 requires further consideration.

In Japan, the number of new COVID-19 cases is estimated to have peaked on March 27 (the peak in effective reproduction was even earlier)²⁹, which was 10 days before the

Japanese government declared a State of Emergency (April 7). Long before that, the national government, local governments, and expert councils issued repeated requests for the public to exercise caution such as hand washing, gargling, and masks. From February 20 to 26, the Ministry of Health, Labour and Welfare, the governor of Tokyo, and the national government called for a review regarding mass gatherings. On February 27, the government called for the country-wide closure of elementary, junior high, and high schools. On March 2, the Novel Coronavirus Expert Meeting, a panel of infectious disease experts advising the government on the COVID-19 response, issued a message to the young people of Japan. On March 9, the Expert Meeting advocated for the avoidance of the “three Cs” (“closed spaces with poor ventilation,” “crowded places with many people nearby,” and “close-contact settings such as close-range conversations”). On March 25, Tokyo Governor Koike also emphasized avoidance of the “three Cs,” along with an urgent request to refrain from going outdoors as the metropolis faced a critical phase in the spread of infection. Despite the fact that each of these calls for behavioral change was merely request-based, it is reasonable to assume that they had a positive impact on infection control before the official State of Emergency was issued.

In addition to a high level of public awareness of these various requests, it may be inferred that Japanese people interpreted such requests as mere extensions of their normal habits and hygiene behaviors. Likewise, peer pressure in Japanese society might have a salutary effect on their propensity to adopt behavioral changes.

3-3-5. Obesity

Obesity has been cited as a clear exacerbator of COVID-19.³⁰ Indeed, at the national level, there is a “modest correlation” (correlation coefficient of 0.46) between the obesity rate and the number of deaths (per million population) due to COVID-19. Japan has one of the lowest obesity rates in the

world. Ethnic and genetic characteristics, along with acquired factors such as health-conscious eating habits, can be attributed to this.

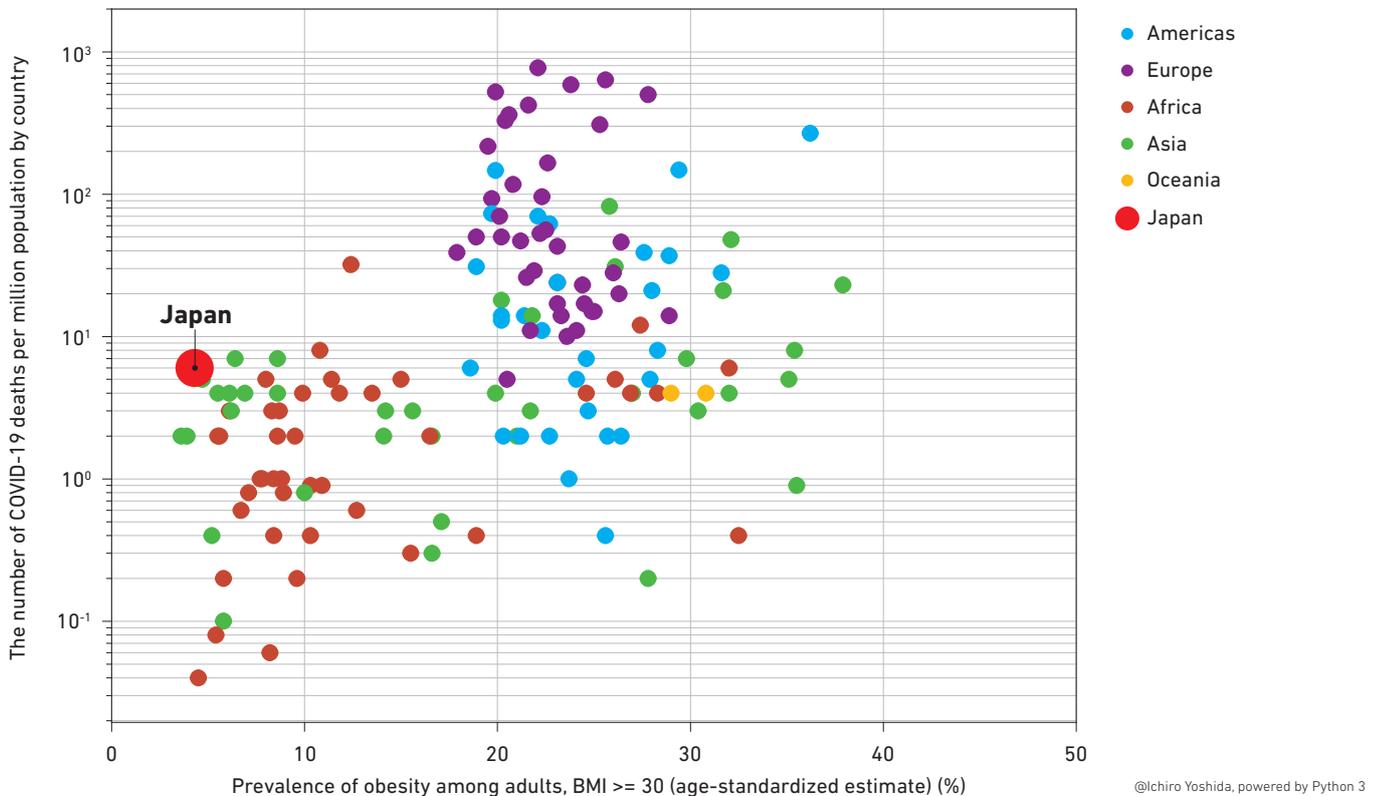


Figure 5. The association between the number of death cases from Covid-19 and obesity rate

source: WORLDOMETER COVID-19 CORONAVIRUS PANDEMIC, accessed on May 17, 2020. <https://www.worldometers.info/coronavirus/> ;
World Health Organization, The Global Health Observatory, accessed on May 23, 2020.
[https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-obesity-among-adults-bmi-=-30-\(age-standardized-estimate\)-\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/prevalence-of-obesity-among-adults-bmi-=-30-(age-standardized-estimate)-(-))

3-3-6. Social distance and population density

Greater insights into how people are physically interspersed in living spaces and good ways of practicing density control should also be developed. For example, while LOS (Level of Service), an international norm, mainly concerns transportation infrastructure and residential construction, it has not been considered from a health and medical point of view. In truth, there is potential to adapt such norms when defining living spaces, public facilities in cities, as well as optimal distancing between people and lifestyles.

It should be noted here that there is a modest correlation between urban residence rate and the number of deaths due to COVID-19 at the national level (correlation coefficient of 0.47). Therefore, in this context, it may be worthwhile to examine what makes cities resistant to infectious diseases—including by focusing on the characteristics of urban living spaces, not only at the national level, and by drawing comparisons between cities as well as between urban and rural areas.

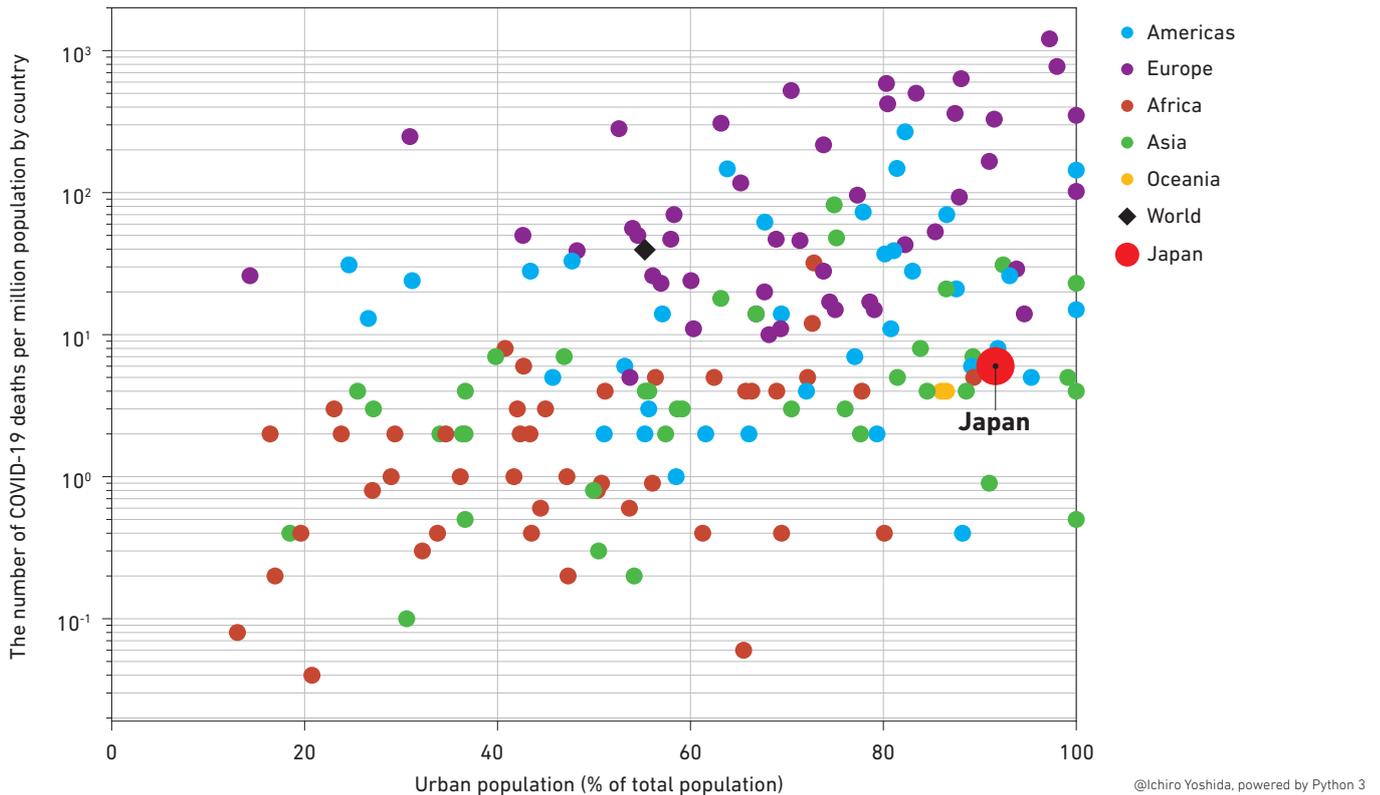


Figure 6. The association between the number of death cases from Covid-19 and urban population

source: WORLDOMETER COVID-19 CORONAVIRUS PANDEMIC, accessed on May 17, 2020. <https://www.worldometers.info/coronavirus/> ; The World Bank Data, accessed on May 23, 2020. <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?view=chart>

3-3-7. Health systems

One point that has been mentioned as a clue to understanding why Japan has been able to keep the COVID-19 death toll relatively low is the existence of health systems resilient to infectious disease threats. The systems consist of three key functions: a public health function centered on health administration and “hoken-jo (public health centers),” clinical medicine that supports advanced medical services, and a national health insurance system that ensures people’s access to care.

After the Meiji Restoration, Japan opened itself to the world and as a result of this, the country was exposed to the threat of imported infectious diseases. Japan decided to introduce Western medicine, and in terms of medical education Japan actively invited experts from abroad and encouraged young elites to study abroad for human resources development. In the field of medical research, outstanding individuals such as Dr. KITASATO Shibasaburo, Dr. SHIGA Kiyoshi, and Dr. GOTO Shinpei laid the foundation for the study of infectious diseases. In terms of health administration, infectious disease control was left to the police as a social defense and a centralized system was put in place up to the end. In 1938, the Ministry of Health and Welfare was established, which, together with the establishment of public health centers, laid the foundation for postwar public health administration in Japan for the immediate purpose of addressing two major national health issues: tuberculosis control and improvement of maternal and child health. Immediately following the end of the World War II, Japan prioritized various infectious disease control measures which would have a great impact

on the entire nation. With limited financial resources, Japan implemented measures that focused on 1) public health services for patients via public health centers, and 2) scientific evidence based tuberculosis treatment and research, while simultaneously implementing a variety of highly versatile measures such as an infectious disease surveillance system. Through these experiences and lessons learned from confronting other challenges, Japan built resilient health systems over the years and achieved quality universal health coverage (UHC). In the process, various other factors contributing to prevention and health promotion —such as clean water, sanitation, and food and nutrition—have been promoted. In addition, in the field of science, Japanese universities have produced outstanding researchers, such as Dr. YAMANAKA Shinya, Dr. OMURA Satoshi, and Dr. HONJO Tasuku, who won the Nobel Prize in Physiology or Medicine.

However, given Japan’s rapidly declining birthrate and aging population, the country confronts issues with, and requires advancements in, both hospital-centered medical care systems and specialized medicine. Nonetheless, in light of a continuing increase in the public share of medical costs despite a general reduction in public services, there is room for debate as to whether the allocation of public resources in recent years has sufficiently enabled responses to health crises like COVID-19. Recently, there have been efforts in various parts of the country, including by local governments, to enable community-based integrated care and expand small-scale multi-functional facilities. It is necessary to carefully examine whether these efforts contribute to preparing for the rapid spread of infectious diseases like COVID-19.

Japan’s main countermeasure against clusters of COVID-19 was explained to set up the system for providing necessary medical services while expecting that people would follow the government’s requests and take care of themselves by staying at home for 4 days if they had a fever of 37.5 degrees Celsius.

As a result, many citizens did not rush to hospitals for testing and treatment, holding off nosocomial infections and medical collapse. Although there were temporary delays in surgery and treatment in parts of the country, some believe that the impact of COVID-19 on other diseases was not very severe. This is a response that could only have been achieved thanks to the strong health systems that Japan has built up over the years.

Admittedly, the observations made so far do not constitute a formal hypothesis, and they should be subjected to further research. Accordingly, it is necessary to review a wide range of cases not only from Japan but also from various countries, and to steadily pick up lessons from each country and discuss them.

3-4. A new look on a healthy society

Let us not forget that we are encountering a time of change. Through COVID-19, we have the opportunity to gain insights into what constitute truly resilient health systems by comparing the experiences of many countries. In doing so, it will be important to consider “health systems” in a broader context and, at the very least, to extend it to understand what a healthy society looks like and to examine such systems scientifically.



Training in preparation for accepting COVID-19 patients (Mongolia)

4 JICA'S COMMITMENT

Building on a common global awareness on the crisis

We have learned a lot from the current crisis. The biggest takeaway is on the ownership exhibited by low- and middle- income countries who are JICA's partners. The governments and self-motivated individuals in many low- and middle-income countries have shown ingenuity, cooperation, and great ownership in dealing with difficult circumstances. In the midst of this crisis, JICA would like to once again pay tribute to the ownership that each country is demonstrating in its own way.

The fight against COVID-19 has only just begun, but the threat of new infections will be a continuous one. In addition to the immediate threats posed by infectious diseases, they will affect entire health systems and, in turn, the lives, economies, societies and, politics of whole populations. What is remarkable is that so many people around the world now share this common global sense of crisis. Based on this, we may be able to further strengthen our mutual solidarity and create a "New World" together. This is a rare opportunity that we have never had before.



Creating a makeshift hospital in the Eastern Royal Guesthouse (Bhutan).
(Facebook: His Majesty King Jigme Khesar Namgyel Wangchuck)

Based on this recognition, JICA has made the following three commitments and will continue to work with low- and middle- income countries as well as with our partners around the world.

Part 1 Meet the urgent needs of low- and middle-income countries

We are operating in over 100 countries, but JICA has now restricted many of its staff and related stakeholders from traveling domestically and internationally. However, even under these restrictions, we intend to take on this challenge as a rare opportunity to enhance and improve our operations to continue to respond to the urgent needs of low- and middle-income countries. In order to enhance our activities, JICA will fully utilize our human resources and organizational networks in different parts of the world, which we have developed through our cooperation over the years. We will also simultaneously work to rapidly expand new networks and utilize those resources.

Part 2 Establish resilient, flexible health systems and realize UHC

COVID-19 challenges us to take a fresh look at how health systems resilient to infectious disease outbreaks and the societies underpinning these systems should be. It is important to further reflect on how the health systems of many high income countries have been hit hard and draw on the scientific findings within those nations. In addition, the COVID-19 pandemic has provided an opportunity to reaffirm the importance of “leaving no one behind” toward achieving UHC.

We have been reminded of the importance of direct infectious disease control and also of prevention and health promotion. Maternal and child health, non-communicable diseases control, aging, water, sanitation, food and nutrition are all critically important for prevention and health promotion. In addition, we have learned that each country’s own past experiences have shaped their response to COVID-19. It is essential to combine Japan’s scientific knowledge and domestic experience described in the chapter 3 with the global scientific knowledge gained through responses to this COVID-19.

We will contribute to building resilient and flexible health systems across the globe, making the most of our scientific knowledge and experience, while also respecting and supporting each country’s ownership. We will work harder than ever to make UHC a reality around the world. Through comparative study of Japan and other countries, we will continue to provide the world with scientific knowledge and lessons learned.

Part 3 Establish a sustainable “New World” that confronts the challenges of modern society

By heavily affecting high-income countries and densely populated cities, COVID-19 has also served as a wake-up call for the need to rethink the state of our modern society and world order. If we overcome this pandemic and use it as a learning opportunity, we can build upon this experience to work toward establishing a “New World” that confronts the challenges of modern society. In the “New World,” the way nations protect their citizens or elicit their voluntary responses, as well the way cities operate, and how people work, learn and communicate may be better than what they are now. Additionally, rather than pursuing expansion of economic activities or achievement of increased profit and efficiency, we may learn to place greater value on “human security,” or protection of people’s lives, livelihoods and dignity, more than ever before.

Based on scientific findings, JICA will carefully analyze the underlying themes that are brought to light due to COVID-19, and it will work toward establishing the sustainable “New World” founded on trust and collaboration. Under JICA’s vision of “Leading the world with trust,” JICA aims to further realize a transparent, equitable society and world order where every person’s potential is fully harnessed.

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If you have any comments or suggestions regarding this paper, please send them to our team address:
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Disclaimer : This document, including its references and hypothetical scenarios, has been prepared by JICA. We believe this document is a first step in analyzing the COVID-19 pandemic and recognize there is room for more analysis regarding the correlation and causality of this pandemic in the future. The sentiments shared in this document are not the official opinions expressed by external experts and other contributors who have provided comments and advice for our research.

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